

## CLAIMS

What is claimed is:

1. An apparatus for documenting the myocardial ischemia of a patient's heart, the apparatus comprising:  
an ECG monitor and data collector configured to receive electrocardial data about the patient's heart;  
a cardiac marker data collector configured to receive cardiac marker data about the patient's heart; and  
a data processing and recording module in electrical communication with said ECG monitor and data collector and said cardiac marker data collector and configured to record said electrocardial data and said cardiac marker data.
2. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 1, said data processing and recording module comprising at least one of a processor and a memory device.
3. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 1, wherein the apparatus further comprises an user interface configured to permit entry of said cardiac marker data for receipt by said cardiac marker data collector.
4. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 1, wherein said data processing and recording module is configured to diagnose myocardial ischemia based on said electrocardial data.
5. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 4, wherein said data processing and recording module is configured to diagnose myocardial ischemia based on said electrocardial data and said cardiac marker data.
6. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 5, wherein said data processing and recording module is configured to suggest a treatment for myocardial ischemia based on said electrocardial data and said cardiac marker data.

7. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 1, the apparatus further comprising a display module in electrical communication with said data processing and recording module and configured to display at least one of said electrocardial data and said cardiac marker data.

8. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 7, wherein said data processing and recording module is configured to suggest a treatment for myocardial ischemia based on said electrocardial data and said cardiac marker data and said display module is configured to display said suggested treatment.

9. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 7, said display module comprising at least one of a visual display and a printer.

10. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 1, the apparatus further comprising an interpretive ECG algorithm module in electrical communication with said data processing and recording module.

11. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 1, wherein said data processing and recording module is configured to detect a change over time of said electrocardial data.

12. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 1, wherein said data processing and recording module is configured to detect a change over time of said electrocardial data and said cardiac marker data.

13. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 1, wherein said cardiac marker data collector is configured to identify a time and a date of receipt of said cardiac marker data.

14. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 1, wherein said data processing and recording module is configured to generate a prompt to a user of the apparatus to perform a cardiac marker test.

15. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 14, wherein said prompt comprises at least one of a visual signal and an auditory signal.

16. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 1, wherein said data processing and recording module is configured to monitor a time period for performing a cardiac marker test on the patient and to generate a request for results of said cardiac marker test when said time period has expired.

17. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 1, the apparatus further comprising a patient data collector that is in electrical communication with said data processing and recording module and is configured to receive patient data comprising at least one of a name of the patient, an identification number of the patient, an age of the patient, a sex of the patient, and a race of the patient.

18. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 17, wherein the apparatus further comprises a user interface configured to permit entry of said patient data for receipt by said patient data collector.

19. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 1, the apparatus further comprising at least one patient parameter monitor and collector that is in electrical communication with said data processing and recording module and that is configured to receive data regarding a physiological state of the patient.

20. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 19, wherein said data regarding a physiological state of the patient comprises at least one of a heart rate of the patient, a blood pressure of the patient, a hemoglobin oxygen saturation of the patient, and an end-tidal carbon dioxide of the patient.

21. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 1, the apparatus further comprising a housing enclosing said ECG monitor and data collector, said cardiac marker data collector and said data processing and recording module.

22. A method for documenting the myocardial ischemia of a patient's heart, the method comprising:

obtaining electrocardial data about the patient's heart;  
receiving results of a cardiac marker test performed on the patient;  
storing said electrocardial data and said results of said cardiac marker test in a patient report; and  
displaying said patient report.

23. The method for documenting the myocardial ischemia of a patient's heart of claim 22, the step of displaying said patient report comprising displaying said patient report on a visual display.

24. The method for documenting the myocardial ischemia of a patient's heart of claim 22, the step of displaying said patient report comprising printing said patient report.

25. The method for documenting the myocardial ischemia of a patient's heart of claim 22, the method further comprising the step of identifying a time and a date of receipt of said cardiac marker data and storing said time and said date in said patient report.

26. The method for documenting the myocardial ischemia of a patient's heart of claim 22, the method further comprising the step of obtaining data regarding the physiological state of the patient.

27. The method for documenting the myocardial ischemia of a patient's heart of claim 26, the step of obtaining data regarding the physiological state of the patient comprising obtaining at least one of a heart rate of the patient, a blood pressure of the patient, a hemoglobin oxygen saturation of the patient and an end-tidal carbon dioxide of the patient.

28. The method for documenting the myocardial ischemia of a patient's heart of claim 26, the method further comprising the step of storing said data regarding the physiological state of the patient in said patient report.

29. The method for documenting the myocardial ischemia of a patient's heart of claim 22, the method further comprising the step of providing a prompt for the performance of a cardiac marker test.

30. The method for documenting the myocardial ischemia of a patient's heart of claim 22, the method further comprising the step of analyzing said electrocardial data to determine if myocardial ischemia is suggested by said electrocardial data.

31. The method for documenting the myocardial ischemia of a patient's heart of claim 30, the method further comprising the step of providing a notification that myocardial ischemia is diagnosed in the patient if said electrocardial data suggests myocardial ischemia.

32. The method for documenting the myocardial ischemia of a patient's heart of claim 30, the method further comprising the step of analyzing said electrocardial data to determine the severity of myocardial ischemia of the patient's heart.

33. The method for documenting the myocardial ischemia of a patient's heart of claim 30, the method further comprising the step of providing a prompt for the performance of a cardiac marker test if said electrocardial data suggests myocardial ischemia.

34. The method for documenting the myocardial ischemia of a patient's heart of claim 30, the method further comprising the step of analyzing said electrocardial data and said cardiac marker data to determine if myocardial ischemia is suggested by said electrocardial data and said cardiac marker data.

35. The method for documenting the myocardial ischemia of a patient's heart of claim 22, the method further comprising the step of analyzing said electrocardial data to detect a change over time of said electrocardial data.

36. The method for documenting the myocardial ischemia of a patient's heart of claim 22, the method further comprising the step of analyzing said electrocardial data and said cardiac marker data to detect a change over time of said electrocardial data and said cardiac marker data.

37. The method for documenting the myocardial ischemia of a patient's heart of claim 22, the method further comprising the steps of monitoring a time period for performing a cardiac marker test on the patient and generating a request for results of said cardiac marker test when said time period has expired.

38. The method for documenting the myocardial ischemia of a patient's heart of claim 22, the method further comprising the step of receiving patient data comprising at least one of a name of the patient, an identification number of the patient, an age of the patient, a sex of the patient, and a race of the patient.

39. The method for documenting the myocardial ischemia of a patient's heart of claim 38, the method further comprising the step of storing said patient data in said patient report.

40. An apparatus for documenting the myocardial ischemia in a patient's heart, the apparatus comprising:

- means for receiving electrocardial data about the patient's heart;
- means for receiving cardiac marker data about the patient's heart;
- means for processing said electrocardial data and said cardiac marker data;
- means for recording said electrocardial data and said cardiac marker data into a patient record; and
- means for displaying said patient record.

41. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 40, said means for processing said electrocardial data and said cardiac marker data comprising a processor.

42. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 40, said means for recording said electrocardial data and said cardiac marker data comprising a memory device.

43. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 40, wherein the apparatus further comprises means for permitting entry of said cardiac marker data for receipt by said cardiac marker data collector.

44. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 43, wherein said means for permitting entry of said cardiac marker data comprises one of a keyboard, a keypad and a touch screen.

45. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 40, wherein said means for processing said electrocardial data and said cardiac marker data further comprises means for diagnosing myocardial ischemia based on said electrocardial data.

46. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 40, wherein said means for processing said electrocardial data and said cardiac marker data further comprises means for diagnosing myocardial ischemia based on said electrocardial data and said cardiac marker data.

47. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 46, wherein said means for processing said electrocardial data and said cardiac marker data further comprises means for suggesting a treatment for myocardial ischemia.

48. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 47, wherein said means for displaying said patient record further comprises means for displaying said suggested treatment.

49. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 40, said means for displaying said patient record comprises at least one of a visual display and a printer.

50. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 40, the apparatus further comprising means for interpreting said electrocardial data, said means for interpreting said electrocardial data in electrical communication with said means for processing said electrocardial data and said cardiac marker data.

51. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 40, wherein said means for processing said electrocardial data and said cardiac marker data comprises means for detecting a change over time of said electrocardial data.

52. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 40, wherein said means for processing said electrocardial data and said cardiac marker data comprises means for detecting a change over time of said electrocardial data and said cardiac marker data.

53. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 40, wherein said means for receiving cardiac marker data comprises means for identifying a time and a date of receipt of said cardiac marker data.

54. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 40, wherein said means for processing said electrocardial data and said cardiac marker data comprises means for generating a prompt to a user of the apparatus to perform a cardiac marker test.

55. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 54, wherein said prompt comprises at least one of a visual signal and an auditory signal.

56. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 40, wherein means for processing said electrocardial data and said cardiac marker data comprise means for monitoring a time period for performing a cardiac marker test on the patient and means for generating a request for results of said cardiac marker test when said time period has expired.

57. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 40, the apparatus further comprising means for collecting patient data, wherein said means for collecting patient data is in electrical communication with said means for processing said electrocardial data and said cardiac marker data, and wherein said means for collecting patient data comprises means for receiving patient data comprising at least one of



a name of the patient, an identification number of the patient, an age of the patient, a sex of the patient, and a race of the patient.

58. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 57, wherein the apparatus further comprises means for permitting entry of said patient data for receipt by said means for collecting patient data.

59. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 40, the apparatus further comprising at least one means for collecting patient parameter data, wherein said at least one means for collecting patient parameter data is in electrical communication with said means for processing said electrocardial data and said cardiac marker data, and wherein said at least one means for collecting patient parameter data comprises means for receiving data regarding a physiological state of the patient.

60. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 59, wherein said data regarding a physiological state of the patient comprises at least one of a heart rate of the patient, a blood pressure of the patient, a hemoglobin oxygen saturation of the patient and an end-tidal carbon dioxide of the patient.

61. The apparatus for documenting the myocardial ischemia of a patient's heart of claim 40, the apparatus further comprising a housing enclosing at least a portion of said means for receiving electrocardial data about the patient's heart, said means for receiving cardiac marker data about the patient's heart and said means for processing said electrocardial data and said cardiac marker data.

62. A medical apparatus of the type that is configured to monitor the electrocardiogram waveform of a patient, the medical apparatus comprising:

- a cardiac marker data collector configured to receive cardiac marker data about the patient's heart;

- a data processor in electrical communication with said cardiac marker data collector;

- a memory module in electrical communication with said data processor and configured to record said electrocardiogram waveform and said cardiac marker data; and

a display module in electrical communication with said data processor and configured to display at least one of the electrocardiogram waveform and said cardiac marker data.

63. The medical apparatus of claim 62, wherein the apparatus further comprises a user interface configured to permit entry of said cardiac marker data for receipt by said cardiac marker data collector.

64. The medical apparatus of claim 62, wherein said data processor is configured to diagnose myocardial ischemia based on the electrocardiogram waveform and said cardiac marker data.

65. The medical apparatus of claim 62, wherein said data processor is configured to diagnose myocardial ischemia based on the electrocardiogram waveform.

66. The medical apparatus of claim 64, wherein said data processor is configured to suggest a treatment for myocardial ischemia based on the electrocardiogram waveform and said cardiac marker data.

67. The medical apparatus of claim 66, wherein said display module is configured to display said suggested treatment.

68. The medical apparatus of claim 62, said display module comprising at least one of a visual display and a printer.

69. The medical apparatus of claim 62, wherein said data processor is configured to detect a change over time of said electrocardiogram waveform.

70. The medical apparatus of claim 62, wherein said data processor is configured to detect a change over time of said cardiac marker data.

71. The medical apparatus of claim 62, wherein said cardiac marker data collector is configured to identify a time and a date of receipt of said cardiac marker data.

72. The medical apparatus of claim 62, wherein said data processor is configured to generate a prompt to a user of the apparatus to perform a cardiac marker test.

73. The medical apparatus of claim 72, wherein said prompt comprises at least one of a visual signal and an auditory signal.

74. The medical apparatus of claim 62, wherein said data processor is configured to monitor a time period for performing a cardiac marker test on the patient and to generate a request for results of said cardiac marker test when said time period has expired.

75. The medical apparatus of claim 62, the medical apparatus further comprising a patient data collector that is in electrical communication with said data processor and is configured to receive patient data comprising at least one of a name of the patient, an identification number of the patient, an age of the patient, a sex of the patient, and a race of the patient.

76. The medical apparatus of claim 75, wherein the medical apparatus further comprises a user interface configured to permit entry of said patient data for receipt by said patient data collector.

77. The medical apparatus of claim 62, the apparatus further comprising at least one patient parameter monitor and collector that is in electrical communication with said data processor and that is configured to receive data regarding a physiological state of the patient.

78. The medical apparatus of claim 77, wherein said data regarding a physiological state of the patient comprises at least one of a heart rate of the patient, a blood pressure of the patient, a hemoglobin oxygen saturation of the patient and an end-tidal carbon dioxide of the patient.

79. The medical apparatus of claim 62, the apparatus further comprising a housing enclosing at least a portion of said cardiac marker data collector, at least a portion of said data processor and at least a portion of said memory module.